Results The BNP and serum cystatin C levels were positively correlated significantly with E/E' ratio (r=0.786, P<0.001 and r=0.458, p=0.02). Patients with elevated LV end diastolic pressure (LVEDP), defined as E/E'>15 had highest BNP (321±75pg/mL) and cystatin C (1.1±0.2mg/L) levels. E/E' 10 to 15 group had a mean BNP level of 151±28pg/mL and a mean cystatin C value of 0.78±0.1mg/L, and those with E/E'<10 had a mean BNP value of 69±20pg/mL. A BNP value of 89pg/mL had a sensitivity of 84% and a specificity of 69% for predicting E/E'>15.

Conclusion The assessment of the blood concentration of BNP and cystatin C is of potential value for identification of those patients after myocardial infarction to detect early cardiovascular changes, especially LV diastolic dysfunction.

The author hereby declares no conflict of interest

0540

Relationship between functional capacity and diastolic function in chronic heart failure patients

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Background Dyspnea is the frequent cause of exercise intolerance and physical inactivity among chronic heart failure patients. Diastolic dysfunction has shown significant correlation with exercise capacity. The aim is to study whether there is interaction between left ventricular diastolic dysfunction and functional capacity in our CHF patients.

Methods 1613 consecutive ambulatory patients with chronic heart failure were enrolled from 2006 to 2013 and registered in the therapeutic unit of chronic heart failure. Clinical, echocardiographic and biological data were investigated. We divided our patients into 2 groups as follow: group 1with reducing filling pressure (64 years, 67% were male), group 2 with elevated filling pressure (EFP) (69 years, 61% were male). We analyzed New York heart association (NYHA) status and the 6 minutes' walk test. Assessment of diastolic function as determined by Doppler-derived mitral and pulmonary venous flow velocities recorded by transthoracic pulsed Doppler echocardiography.

Results There was no significant difference in baseline characteristic and ejection fraction. The mean of 6 minutes' walk in groups were 349 and 212m respectively.

Group 2 (EFP) was significantly associated with more NYHA grade III/IV (p<0.00001), inversely associated with NYHA grade I/II (p<0.0001). The 6 minutes' walk test was shorter in EFP patients than others (P<0.01). There was a significant correlation between diastolic dysfunction and cardiac decompensation (p=0.00001), right ventricular dysfunction (p=0.00001), pulmonary hypertension (p=0.00001), dilated vena cava and higher doses of diuretics (p=0.00001). Also, beta-blockers were inversely associated (P<0.0001).

Conclusion Diastolic dysfunction is significantly associated with impaired functional capacity and dyspnea among CHF patients.

The author hereby declares no conflict of interest

0446

Impact of body mass index on prognosis in systolic heart failure patients: Moroccan profile

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Background Higher body mass index (BMI) is associated with incident chronic heart failure (CHF) but it is paradoxically associated with better prognosis. The objective of the study was to analyze the relationship between body mass index and HF in a Moroccan profil.

Methods and results We enrolled 685 patients admitted to the Therapeutic Unit of Chronic Heart Failure (TUHF) from 2006 to 2013 as follow: underweight (BMI <18.5kg/m^2, n=35), normal (18.5 ≤BMI<25, n=349), overweight (25≤BMI <30, n=200) and obese (BMI ≥30, n=101) and compared the results from their clinical data, laboratory tests and echocardiography. The prevalence of obesity and overweight in CHF were 15 and 29% respectively.

Obese group had a higher prevalence of obesity-related comorbidity (hypertension: p=0.0001, diabetes mellitus: p=0.0001 and dyslipidemia: p=0.001). Age, Ischemic heart disease, strock attack, stage NYHA, heart rate, hospitaliszation rate for cardiac decompensation, left right ventricular systolic function did not differ among the groups. However male sex, anemia and diastolic dysfunction were higher in the underweight group than in the other groups (p<0.0001 and p=0.03 respectively).

Conclusion High body mass index (overweigh and obesity) was frequent in chronic heart failure and it was not predictor of cardiac decompensations and hospitalizations. Furthermore, lower BMI was associated with diastolic dysfunction.

The author hereby declares no conflict of interest

0560

New parameters for early diagnosis of anthracycline induced cardiotoxicity in children

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Purpose To establish the usefulness of research of dispersion QT / QTc intervals and values of cardiac biomarkers-B natriuretic peptide (BNP) for early detection of cardiotoxicity in children with malignant diseases.

Methods Patients: 46 children (2 months-18 years), treated with anthracyclines for malignancies.

Control group: 20 healthy children without cardiovascular history. Patients and controls were evaluated by clinical exam, surface 12 lead ECG (3 consecutive cycles of measuring the QT/QTc intervals and QT/QTc intervals dispersion), Doppler echocardiography (Echo), determining plasma levels of cardiac biomarkers BNP and cTnI.

Results Were found some significant changes in patients comparativ with controls: *increasing the dispersion of the QT / QTc intervals (73% cases especially those with a cumulative dose of anthracyclines>250mg/m^2 and in patients with echo changes induced by anthracycline cardiotoxicity, even only with diastolic dysfunction of LV:- the mean of QT dispersion: 80 miliseconds in patients -40 millisec. in controls; - the mean QTc dispersion: 87,103 millisec. in patients-55.47 millisec in controls; ** Increased plasma levels of BNP in 45.7% of patients, from a mean baseline of 89 ng/ml to value 240 ng/ml. Biological changes were correlated with the presence of clinical manifestations, echo changes induced cardiotoxicity and increase of dispersion QT / QTc intervals. Conclusions. Increased levels of cardiac biomarkers: BNP and cTnI and of the dispersion of QT/QTc intervals in children treated with anthracyclines±other drugs with cardiotoxic efects positively correlates with installation of the cardiotoxicity with clinical or infraclinical manifestations, constituing an useful indicator for the.cardiotoxicity. Changes in this parameters appeared early than echo changes anthracicline induced cardiotoxicity and is necessary to systematic monitoring these parameters during and after cytostatic treatment.

The author hereby declares no conflict of interest

0480

Factors of improvement of physical ability after exercise training program in heart failure patients with reduced ejection fraction

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Introduction Exercise training is a fundamental part of heart failure with reduced ejection fraction (HF-REF) treatment. It reduces mortality and hospitalizations and improves functional capacities. The aim of this study was to

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